

CA

Academician Nikolai Dmitrievich Zelinskii, M. B.
Turysa-Pollak. *Zhur. Priklad. Khim.* (J. Applied Chem.)
24, 117-24 (1951).—Biography with portrait and summary of
70 years of scientific work. G. M. Kosolapoff

2

CA

Academician Nikolai Dmitrievich Zelinskii on his 60th
birthday. M. B. Turpeva-Pollak. *J. Appl. Chem. U.S.S.R.*
S.R. 24, 133nd (1951) (Engl. translation).—See CA 46,
301c. R. M. S.

1953

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757610005-9

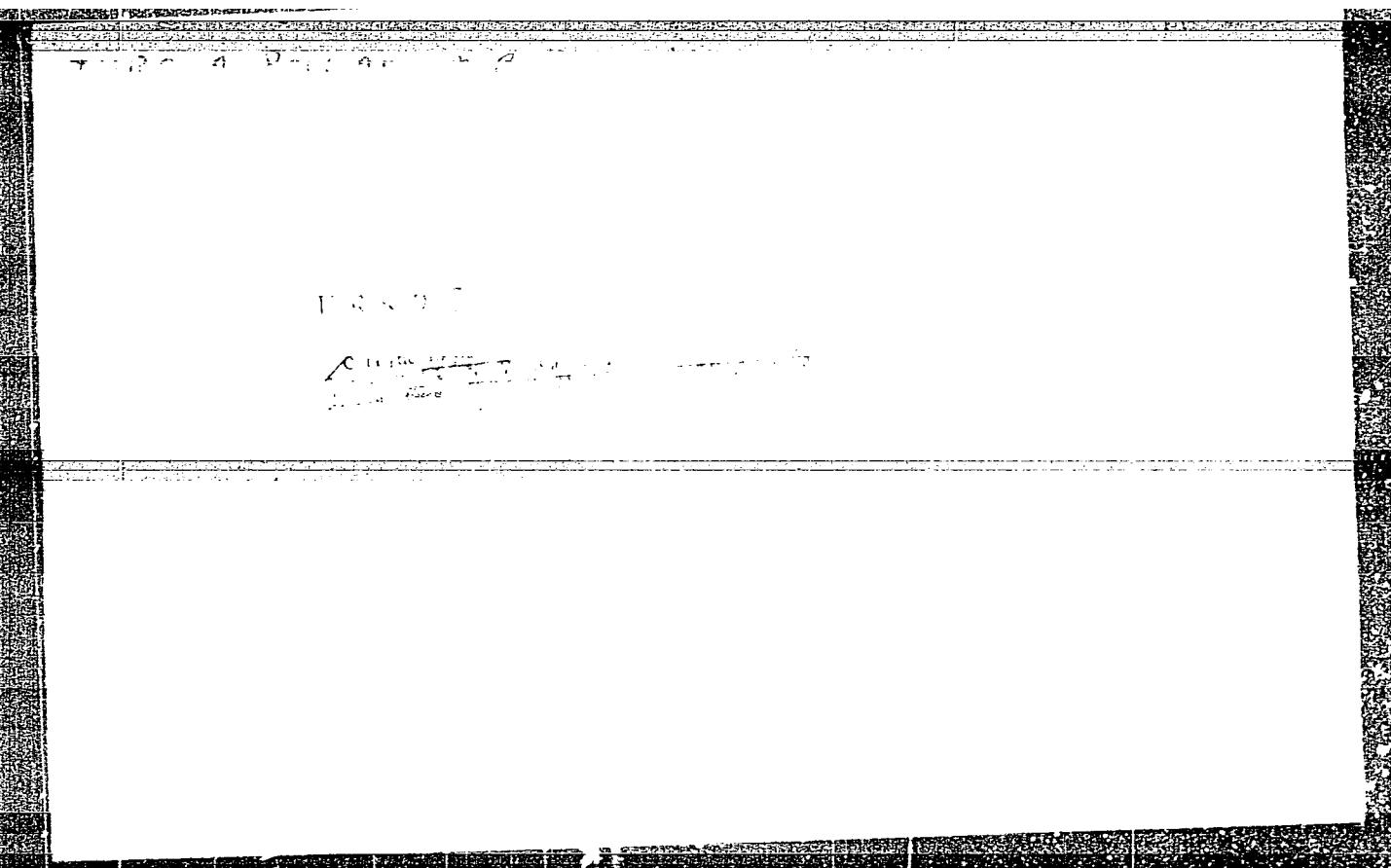
TIPONA PLIVAK M.P.

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TUROVA-POLYAK, M.B.; SOSNINA, I.Ye.; TRESECHOVA, Ye.G.

Isomerization of polymethylene hydrocarbons under the influence of aluminum.
Part 18. Isomerization of dicyclopentyl. *Zhur.ob.khim.* 23 no.7:1111-1116
Jl '53. (MLRA 6:7)

1. Kafedra organicheskogo kataliza Moskovskogo Gosudarstvennogo universiteta.
(Isomerism) (Cyclopentyl)

GURDVA - POLLAK, M.B.

TUROVA-POLYAK, M. G.

USSR/Chemistry - Catalytic conversion

Card 1/1 : Pub. 151 - 14/42

Authors : Turova-Polyak, M. G.; Danilova, N. V.; and Treshchova, E. G.

Title : Catalytic alkylation of benzene with butyl alcohol

Periodical : Zhur. ob. khim. 24/9, 1558-1562, Sep 1954

Abstract : The reaction of benzene alkylation with butyl alcohol was realized for the first time in a flowing system at atmospheric pressure. The chemical properties of the reaction products obtained are described. A temperature of 300°, molar ratio of benzene : n-butyl alcohol of 4 : 1 and a volumetric rate of feeding the reaction mixture of 0.66 - 2.4 are considered the optimum conditions favorable for the derivation of butyl benzenes. The percentage yield of butyl benzene was calculated. Fifteen references: 9-USA; 1-German and 5-USSR (1929-1953). Tables; graphs.

Institution : State University, Moscow

Submitted : April 19, 1954

TUROVA-POLYAK, M.B.

Catalytic transformations of cyclohexane hydrocarbons on aluminosilicate catalyst. A. A. Balandin, M. B. Turova-Polyak, and Syul Kan. *Doklady Akad. Nauk S.S.S.R.* 165: 710-19 (1965).

— Passage of substituted cyclohexanes over aluminosilicate catalyst at 500° gave the following yields of products from indicated starting materials (%): yield of liquid catalyzate, gaseous products in ml./g., % yield of coke, gaseous hydrocarbons, liquid products, isomerization products, total aromatics, C₁₀H₈, MePh, 2,5, higher aromatics: cyclohexane 82, 171, 2.9, 13, 4, 4.1, 12.3, 1.4, 2.7, 2.5, 5.7; methylcyclohexane 69.6, 95.3, 2.3, 24.8, 9.2, 7.6, 15.5, —, 8.1, 2.4, 5.0; ethylcyclohexane 68.9, 254, 2.4, 21.9, 9.9, 7.2, 16.1, —, 13.2, 2.9, 1.4; dimethylcyclohexane 64.8, 311, 2.6, 28.1, 11.1, 4.2, 19.9, —, 2, 14, 3.9; 1,1-dimethylcyclohexane 74.1, 309, 1.3, 19.3, 9.5, —, 14, —, 8.8 (including xylenes), 5.2; 1,3,5-trimethylcyclohexane 59.1, 309, 4.3, 33.9, 11.5, 2.5, 21.2, —, —, 15.8, 5.4; isopropylcyclohexane 63.4, 276, 4.1, 31.6, 16.3, 8.7, 18.2, —, —, 14.3, 3.9. The longer the time of contact, the greater is the proportion of gaseous products, particularly CH₄; the above set of values obtained at space velocity 0.29 l./l./hr. Elevation of temp. from 500° to 506° raises the total conversion, the yield of gases, and amt. of MePh formed. The apparent activation energy was found from gas evolution to be 27,700 cal./mole for methylcyclohexane, and 39,900 cal./mole for cyclohexane.

G. M. Kosolapoff

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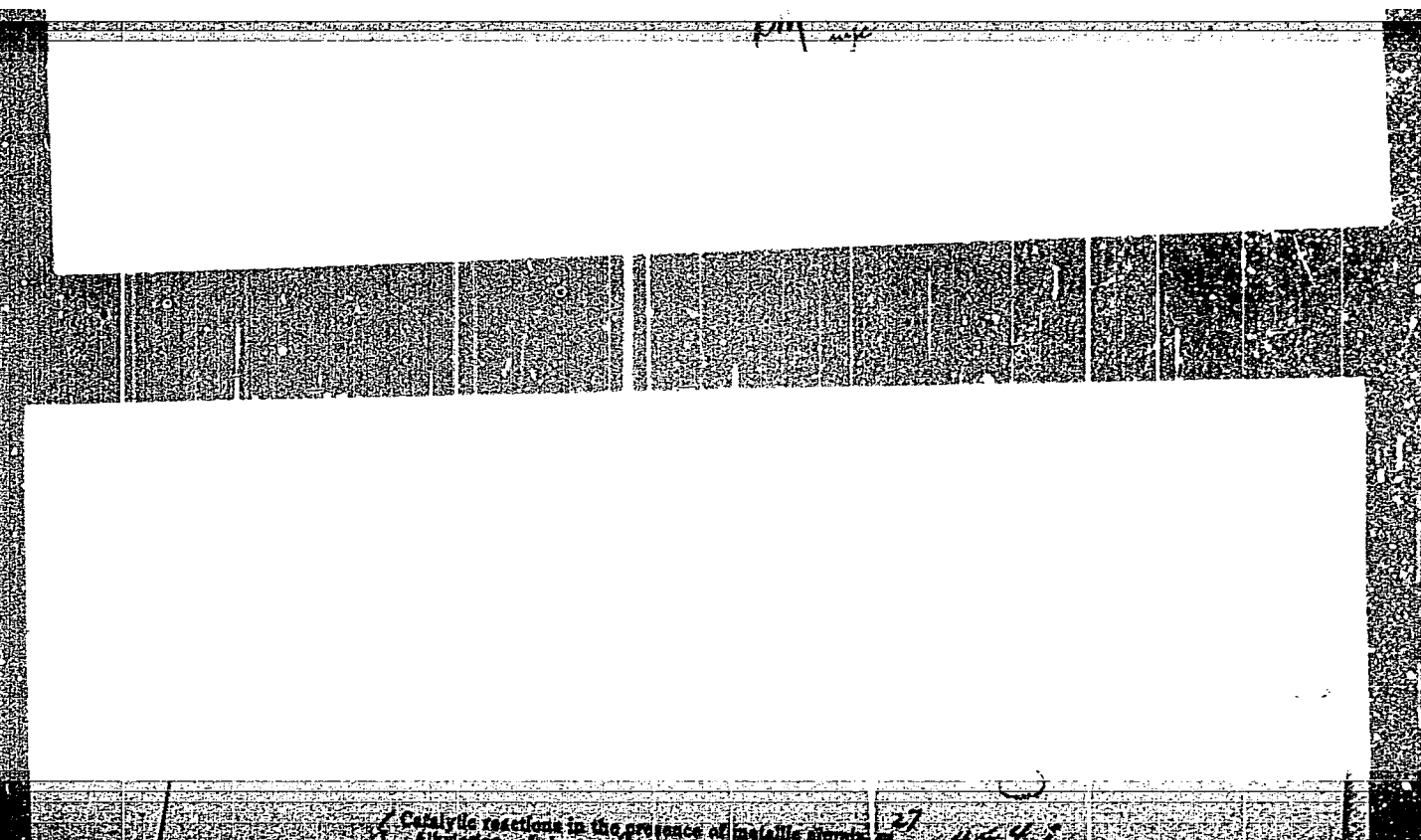
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Scania and L. P. Jussius, *Journal of the Royal Society of Medicine*, 1912, 5, 1, 1-12.

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1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

or Bu) was realized in presence of Al by warming the mixt.
to start the reaction and finally heating on a steam bath
30-40 min. Mainly poly-ketones are formed

cyclohexylcyclopentane (1) produces an exothermic re-
action and stirring the mixt. 20 hrs. longer resulted in iso-
lation of pure cyclopentane.

3004.51, 10000, 44100, 40100, 10000, 10000, 10000
02000, 10000, 10000, 10000, 10000, 10000, 10000

7 Nov 71

while at 10000 the reaction was more rapid and the yield was

100%.

Turova Polyak, M.B.
USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topo-chemistry, Catalysis.

B-9

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7257.

Author : A.A. Balandin, M.B. Turova-Polyak, A.Ye. Agronomov,
I.M. Khorlina, L.S. Kon'kova.

Inst : Academy of Sciences of USSR.

Title : Catalytic Dehydration of Alcohols on Anhydrous Magnium Sulfate.

Orig Pub: Dokl. AN SSSR, 1957, 114, No 4, 773-776.

Abstract: The dehydration of cyclohexanol, cyclopentanol, pentanol-2 and propanol-2 in the vapor phase at 400 to 410° and at the volume rate of 0.4 in presence of anhydrous MgSO₄ proceeds practically to the end. The apparent activation energies in the range from 360 to 400° are from 14370 to 15910 cal per mole, which, in the authors' opinion, is stipulated either by the same orientation of alcohol molecules with reference to the catalyst surface, or by that all these reactions are

Card : 1/2

-42-

L 38929-66 E (m)/EWP(t)/EWP(t)/ETI LJP(c) EWP/JG JD/EM
ACC NR: AP6011659 SOURCE CODE: UR/0020/66/167/003/0604/0606

AUTHOR: Turova, N. Ya.; Popovkin, B. A.; Novoselova, A. V. (corresponding member AN SSSR)

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: X-ray analysis of methylates of alkali-earth metals

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 604-606

TOPIC TAGS: X ray analysis, beryllium, magnesium, calcium, strontium, barium

ABSTRACT: The authors made an x-ray analysis of methylates of Be, Mg, Ca, Sr, and Ba in the form of powder products obtained upon desolvation of $\text{Me}(\text{OCH}_3)_2 \cdot 4 \text{CH}_3\text{OH}$ (Me=Mg, Ba) or in the form of unsolvated alcoholates. The x-ray patterns of the powder were obtained on Fe-K-radiation in an RKD-57⁶ camera. The parameters were refined on the basis of the powder patterns recorded on $\text{CuK}\alpha$ -radiation with the use of a monochromatic illuminator. The specimens of the alcoholates for photographing in the RKD camera were prepared by filling capillary tubes made of pyrex glass in a dry chamber in an argon atmosphere. Suspensions of powders in absolute liquid petrolatum were used for recording in the monochromator. The

UDC: 546.4/.5+548.736

Card 1/3

L 38929-66

ACC NR: AP6011659

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density was determined pycnometrically and by the suspension method in mixtures of absolute benzene with CCl_4 or CHBr_3 with preliminary pressing of the powders in a vacuum. Both methods yielded results which agreed well. The quality of the x-ray patterns of the alkali-earth methylates somewhat deteriorates upon changing from strontium to calcium, only diffuse rings were present on the powder x-ray patterns of $\text{Mg}(\text{OCH}_3)_2$, and $\text{Be}(\text{OCH}_3)_2$ represented a completely x-ray amorphous substance. The x-ray patterns of $\text{Ca}(\text{OCH}_3)_2$, $\text{Sr}(\text{OCH}_3)_2$, $\text{Ba}(\text{OCH}_3)_2$ were fully identified in the hexagonal cells. On the basis of the coincidence of the indexes of the lines of the powder x-ray patterns of $\text{Ca}(\text{OH})_2$ and of the methylates, their sequence, and the relative intensity, the authors conclude that all alkali-earth methylates are isostructural to calcium hydroxide and have the same space group $P\bar{3}m1$ ($C\bar{3}m$). These methylates apparently have a laminar structure with the following alternation (in the direction of the c-axis) of atoms: $[(\text{CH}_3)\text{OmeO}(\text{CH}_3)] [(\text{CH}_3)\text{OMe} \dots]$ each of these atoms forms a layer perpendicular to the c-axis. This structure of the methylates is confirmed by the difference of the parameters of c in hexagonal cells of $\text{Ca}(\text{OCH}_3)_2$ and $\text{Ca}(\text{OH})_2$ amounting to 3.44 Å, which is very close to the difference between the heights of the cells of LiOH and LiOH (3.55 Å). The constancy of the heights of the unit cells which was observed upon transition from $\text{Ca}(\text{OCH}_3)_2$ to $\text{Ba}(\text{OCH}_3)_2$ is attributed to the rather sharp increase of the degree of ionization of the metal-oxygen bond from the former to the latter compensating the increase of the radius of the metal. The same constancy of heights is observed in the methylates of lithium and sodium and for $\text{Na}(\text{OCH}_3)0.66(\text{OH})0.33$ and KOCH_3 . Orig. art. has:

Card 2/3

L 38929-66

ACC NR: AP6011659

1 table.

SUB CODE: 07,11 SUBM DATE: 09Sep65/ ORIG REF: 003/ OTH REF: 010

Card 3/3

5 (2)

AUTHORS:

Balandin, A. A., ~~Turova-Polyak, M. B.~~, SOV/62-59-0-33/42
Levi, C. I., Khayfits, L. A.

TITLE:

On the Formation of Elementary Phosphorus Under the Effect of Hydrogen and Vapors of Organic Substances on a Phosphoric Acid Catalyst on Activated Coal

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 8, p 1499 (USSR)

ABSTRACT:

In this short communication the authors report on the conditions and causes of elementary phosphorus forming during work with the above mentioned phosphoric acid catalyst. When hydrogen and vapors of organic substances pass over the catalyst the formation begins at 400° and, in the case of nitrogen, at 600°. Oxygen traces in the vapors prevent phosphorus formation. It is supposed that the phosphorus reduction is effected by the especially active surface atoms of the activated coal and the hydrogen atoms. There is 1 Soviet reference.

Card 1/2

On the Formation of Elementary Phosphorus Under the Effect of Hydrogen and Vapors of Organic Substances on a Phosphoric Acid Catalyst on Activated Coal

SOV/62-59-8-33/42

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov). Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy of Sciences, USSR)

SUBMITTED: February 19, 1959

Card 2/2

BALENKOVA, Ye.S.; SOSNINA, I.Ye.; TUROVA-POLYAK, M.B.; KHROMOV, S.I.

Studying the effect of aluminum chloride on cyclodecane;
brief report. Vest.Mosk.un.Ser.mat., mekh., astron., fiz., khim.
14 no.3:203-204 '59. (MIRA 13:5)

1. Kafedra organicheskogo kataliza Moskovskogo gosudar-
stvennogo universiteta.
(Aluminum chloride) (Cyclodecane)

AUTHORS: Turova-Polyak, M. B., Sosnina, I. Ye., SOV/79-29-1-22/74
Voznesenskaya, I. I., Yudkina, T. P.

TITLE: Isomerization of the Polymethylene Hydrocarbons Under the
Influence of Aluminum Chloride (Izomerizatsiya polimetilenovykh
uglevodorodov pod vliyaniyem khloristogo alyuminiya)
XXII. Isomerization of the Dicyclopentyl Methane (XXII. Izo-
merizatsiya ditsiklopentilmetana)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 97-101 (USSR)

ABSTRACT: In this paper the behavior of dicyclopentyl methane (a hydro-
carbon which may belong to the constituents of the petroleum
fraction of mineral oil, as far as its constants are concerned)
was investigated on its reaction with $AlCl_3$ and the influence
was clarified that is exerted by the methylene group which
separates the two five-membered rings, upon the direction of
isomerization. On the basis of the experimental results of the
present paper it may be regarded as being proved that dicyclo-
pentyl methane, like dicyclopentyl, is subjected to skeleton
isomerization under the influence of aluminum chloride and is
transformed into the trans-3-methyl decahydro naphthalene.

Card 1/2

isomerization of the Polymethylene Hydrocarbons Under the Influence of Aluminum Chloride. SOV/79-29-1-22/74

XXII. Isomerization of the Dicyclopentyl Methane

At 23-27° isomerization takes place in a 96-98 % yield, at 0° in a smaller yield and at -5° there is no isomerization any longer. The presence of β -methyl decahydronaphthalene was found by catalytic dehydrogenation and confirmed spectroscopically. On the dehydrogenation the β -methyl naphthalene was separated and identified as picrate. According to the results obtained it is proved that the methylene group which is situated between the two rings in dicyclopentyl methane does not appreciably influence the direction of isomerization. An attempt was made to establish the isomerization mechanism of dicyclopentyl methane into the trans- β -methyl decahydronaphthalene (see both schemes). There are 1 table and 14 references, 9 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: November 21, 1957

Card 2/2

5(3)

AUTHORS:

Turova - Polyak, M. B., Dobrosel'skaya, N. P.

TITLE:

Catalytic Reactions in the Presence of Metallic Aluminum (Kataliticheskiye reaktsii v prisutstvii metallicheskogo alyuminiya). IV. Alkylation of Bromobenzene With Ethyl-n.-propyl- and n.-Butyl Bromide. Alkylation of Iodobenzene With n.-Butyl Bromide (IV. Alkilirovaniye brombenzola bromistym etilom, n.-bromistym propilom i n.-bromistym butilom. Alkilirovaniye yodbenzola n.-bromistym butilom)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1072-1077 (USSR)

ABSTRACT:

The alkylation of chlorobenzene with the above-mentioned alkyl bromides in the presence of metallic aluminum was recently carried out by the authors (Ref 1). It was proved in this paper that also bromobenzene can be alkylated in the same way. In order to investigate more thoroughly the kinetics of the alkylation in the liquid phase (in the presence of aluminum halides), the authors determined the influence exercised by the nature of the alkylating reagents, their mutual ratio, the reaction temperature, the heating time of the reaction mixture, and the activation time of aluminum upon the yield of the alkylation

Card 1/2

SOV/79-29-4-6/77

Catalytic Reactions in the Presence of Metallic Aluminum. IV. Alkylation of Bromobenzene With Ethyl-n.-propyl- and n.-Butyl Bromide. Alkylation of Iodobenzene With n.-Butyl Bromide

products. The same dependence of the yield of alkyl bromobenzenes on the nature of the alkyl bromide used and on the composition of the reaction mixture as in the alkylation of chlorobenzene (Ref 1) was established. The yields of alkyl bromobenzenes increase with the increasing molecular weights of alkyl bromides. The maximum yield of alkyl bromobenzene (a mixture of para- and ortho-isomers) is 52%, of n-isopropyl bromobenzene 75%, and of n-isobutyl bromobenzene 80%. Alkylbromobenzenes of normal structure are not obtained. The alkylation of iodobenzene with n.-butyl bromide in the presence of metallic aluminum is not possible. There are 5 tables and 21 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: March 6, 1958

Card 2/2

SCV/79-29-4-7/77

5(3)

AUTHORS:

Turova-Polyak, M. B., Sosnina, I. Ye., Golutvina, I. G.,
Yudkina, T. P.

TITLE:

Isomerization of Polymethylene Hydrocarbons Under the Influence of Aluminum Chloride (Izomerizatsiya polimetilenovykh uglevodorodov pod vliyaniyem khloristogo alyuminiya). XXIII. Isomerization of 2-Methyl-bicyclo-(1,2,2)-heptane (XXIII. Izo-merizatsiya 2-metil-bitsiklo-(1,2,2)-geptana)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, PP 1078-1083 (USSR)

ABSTRACT:

Apart from the paper by P. R. Schlever (Ref 1), the contact transformations of bicyclic bridge hydrocarbons in the presence of $AlCl_3$ have so far not been dealt with. As the basis of many natural products the skeleton of bicyclo-(1,2,2)-heptane is of great interest. 2-methyl-bicyclo-(1,2,2)-heptane is obtained by condensation of cyclopentadiene with acrolein and by hydrogenation of 2-methyl-bicyclo-(1,2,2)-heptene-5 in the presence of the skeleton-nickel catalyst. Theoretically two endo- and exo-isomers are possible for this heptane which, however, could hitherto not be separated (Scheme 1). Such configurations of the spatial arrangement of hydrocarbons were observed by Schlever

Card 1/2

SOV/79-29-4-7/77

Isomerization of Polymethylene Hydrocarbons Under the Influence of Aluminum Chloride. XXIII. Isomerization of 2-Methyl-bicyclo-(1,2,2)-heptane

(Ref 1). The authors found that 2-methyl-bicyclo-(1,2,2)-heptane practically completely isomerizes to bicyclo-(1,2,3)-octane by reaction with $AlCl_3$ at 75° , i.e. to a system consisting of five- and six-membered rings on the basis of a seven-membered ring. At 100° this reaction is accompanied by the formation of condensation products. At $21-28^\circ$ a transition from one steric configuration of 2-methyl-bicyclo-(1,2,2)-heptane into the other takes place which was proved by spectrum analysis and the physical constants. On the strength of the results obtained it may be concluded that the part of the molecule of the above heptane which corresponds to methyl cyclopentane reacts in the presence of $AlCl_3$ in the same way as in isolated state, i.e. it expands to a six-membered ring. On the hydrogenolysis of bicyclo-(1,2,3)-octane the m-xylene is formed. There are 1 figure, 3 tables, and 15 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: February 11, 1958

Card 2/2

L 34530-65 EWG(j)/EWI(m)/EPF(c)/EPR/EMP(j)/EMP(t)/EMP(b) PC-4/Pr-4/PS-4

AUGUST 1964

AUTHOR: Turova-Polyak, M. N.
Chong Iem; Denisova, Ye. P.

TITLE: The use of rare earth element oxides in catalytic synthesis

SOURCE: AN SSSR. Doklady*, v. 157, no. 3, 1964, 643-645

... catalytic synthesis, ketone synthesis
oxidation reaction

ed using Nd, Kr, Pr and La OALCO
Card 1/3

APPROVED FOR RELEASE: 04/03/2001
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APPROVED FOR RELEASE: 04/03/2001
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SUBMITTED 12M1764

5 (3)

AUTHORS: Turova-Polyak, M. B.; Rudenko, N. V. SOV/20-126-6-40/67

TITLE: Alkylation of Benzene and Some Substituents by Isopropyl Alcohol
Over an Alumino-silicate Catalyst at Atmospheric Pressure
(Alkilirovaniye benzola i yego zameshchennykh izopropilovym
spirtom nad alyumosilikatnym katalizatorom pri atmosferenom
davlenii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1289 - 1292
(USSR)

ABSTRACT: With the increasing importance of the alkyl products the subject mentioned in the title becomes more and more interesting. The catalysts mentioned in the title are widely used, the alkylation in the vapor phase in their presence, however, is still insufficiently investigated. The authors investigated the alkylation of the following: benzene, toluene, phenol, chlorobrom- and nitrobenzene by isopropyl alcohol. They obtained A) Cumene (yield 79%) (source for the production of phenol and acetone, Ref 1); B) zymol from which also styrene homologues (monomers for the production of artificial rubber) (Ref 2) may be produced; C) alkyl phenols (washing agent), phenol-formaldehyde-resins, initial substances for frostproof rubbers, Ref 3); D)

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Alkylation of Benzene and Some Substituents by
Isopropyl Alcohol Over an Aluminosilicate Catalyst
at Atmospheric Pressure

SOV/20-126-6-40/67

Halogen substituents of benzene (semiproducts for various syntheses, especially production of halogen-styrenes, Ref 4) etc. The yields of the latter were: isopropyl-bromine-benzene 69%, zymol 79%, isopropyl-phenol - 81% and isopropyl-chlorine-benzene 63% of the amount of alcohol used for the reaction. Nitrobenzene could not be alkylated. The activity of the catalyst remains sufficiently high for approximately 19 hours (Fig 1). Therefore the catalysts mentioned in the title are suited for alkylation because of the simple regeneration and their anti-corrosion properties. The results obtained by the authors concerning the character of the functional groups in the benzene cycle, the temperature at which the reaction is carried out, the velocity of the supply of the reacting components, and their molar ratio agree well with the theoretical principles. The presence of toluene in alkylation products besides p-zymol and m-zymol is in contradiction with the data on the mainly oriented action of the methyl group in an o- and p-position. The interrelation of the products of normal and anormal orientation (Ref 6) depends on the alkylation conditions. The higher the

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Alkylation of Benzene and Some Substituents by
Isopropyl Alcohol Over an Alumina-silicate Catalyst
at Atmospheric Pressure

SOV/20-126-6-40/61

activity of the catalyst, the duration and the temperature of the reaction, the stronger is the tendency towards a formation of an anomalous m-derivative. The mechanism of the catalytic alkylation of the aromatic compounds by alcohols has not yet been definitely determined. Various considerations on a possible explanation of this mechanism are given (Refs 7,8,10,12,14,15). Equations (1), (2) and (3) describe the general mechanism of the reaction investigated. The authors carried out the alkylation in the presence of 100 ml globular alumina silicate for 1 - 3.5 hours at 200 - 350°. Figure 3 shows the optimum yields of cumene, xymol, isopropyl-chlorobenzene, isopropyl-bromobenzene, and isopropyl-phenol. Figure 4 shows the dependence of the yields on the velocity of the supply. In all cases the reduction of the alcohol concentration favored the increase of the yield of monoalkyl products. The structure of the alkylation products was confirmed by the production of derivatives in some cases also spectroscopically. There are 4 figures, 1 table, and 16 references, 10 of which are Soviet.

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Alkylation of Benzene and Some Substituents by
Isopropyl Alcohol Over an Aluminosilicate Catalyst
at Atmospheric Pressure

80V/20-126-6-40/67

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 4, 1959, by A. A. Balandin, Academician

SUBMITTED: March 4, 1959

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5.3400

77357

SOV/79-30-1-18/78

AUTHORS: Turova-Polyak, M. B., Rudenko, N. V., Ling Li-tang

TITLE: Catalytic Alkylation of Phenol With Isopropyl Alcohol

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 94-98 (USSR)

ABSTRACT: The effect of the hydroxyl group on alkylation of phenol was studied. The optimum conditions of the reaction over alumino-silicate catalyst are: temperature, 210-230°, and space velocity of reagents, 0.2 hr⁻¹. Increasing the concentration of phenol up to 20 moles per 1 mole of alcohol decreases the yield of diisopropylphenols and increases the yield of mono-isopropylphenols up to 81%. Recycling the unreacted phenol raises the yield of monoisopropylphenol to 95%. Increasing the concentration of alcohol in the reaction mixture facilitates the formation of dialkylated products. The obtained monoisopropylphenol consists primarily of the para isomer with an admixture of the ortho isomer. The activity of catalyst decreases

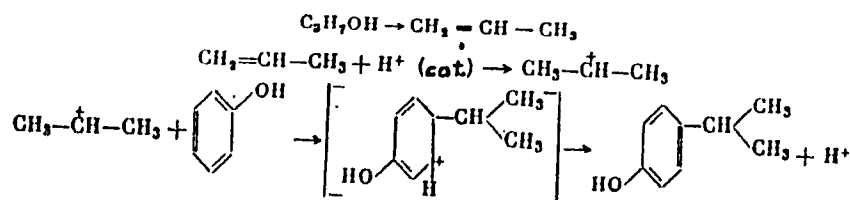
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Catalytic Alkylation of Phenol With
Isopropyl Alcohol

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sharply after 19 hr of use, but it can be fully regenerated by treatment with a strong stream of dry air at 500-550°. The mechanism of the alkylation is explained by the formation of carbonium ions, which alkylate phenol.



The fractional distillation of the obtained product produced several fractions. One of them, bp 124-124.3°, mp 15.5°, n_D^{20} 1.5282, was o-isopropylphenol. Reaction of o-isopropylphenol with monochloroacetic acid yielded o-isopropylphenoxycetic acid, mp 131.5-132.5°. Reaction of o-isopropylphenol with potassium persulfate produces a blue solution, which is characteristic of

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o-isopropylphenol. The fraction 124.3-136.8°, n_D^{20} 1.5271 yielded o-isopropylphenol, n_D^{20} 1.5280, by freezing out, and a small amount of p-isopropylphenol, mp 60°. The fraction 136.8-137.3° yielded crystals of p-isopropylphenol, mp 60° (after recrystallization from alcohol) on cooling. Reaction of p-isopropylphenol with monochloroacetic acid yielded p-isopropylphenoxyacetic acid, mp 81.5-82.3°, and with benzoyl chloride, its benzoate, mp 71.2-72.2°. When an alkaline solution of p-isopropylphenol was treated with potassium persulfate, an orange solution was obtained, which is characteristic of p-isopropylphenol. From the fraction with bp above 231°, a 2,4-diisopropylphenol, bp 144.5-145.6° (20 mm), n_D^{20} 1.5120, was obtained. There are 7 figures; 33 references, 9 Soviet, 18 U.S., 3 U.K., 2 Japanese, 1 German. The 5 most recent U.S. references are: Jordan, T., Vapor Pressure of Organic Compounds, N.Y. (1954); Sowa, F., Hinton, H., J. Am. Chem. Soc.,

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Catalytic Alkylation of Phenol With
Isopropyl Alcohol

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SOV/79-30-1-18/78

54, 3694 (1932); Hansch, C., Robertson, D., J. Am. Chem. Soc., 72, 4810 (1950); Sowa, F. C., Hennion, H. F., Nieuwland, J., J. Am. Chem. Soc., 57, 709 (1935); Carpenter, M., Wood, T., Easter, W., J. Org. Ch., 615 (1951).

ASSOCIATION: Moscow State University (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: January 12, 1959

Card 4/4

SOSNIHA, I.Ye.; TUROVA-POLYAK, M.B.

Action of aluminum chloride on bicyclo (2,2,1) heptane. Part 26.
Zhur.ob.khim. 32 no.6:1941-1942 Ja '62. (MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Aluminum chloride) (Norbornane)

PUROVA-POLYAK, M.B.; SOSNINA, I.Ye.; BOLTUNOVA, L.D.

Isomerization of polymethylene hydrocarbons under the effect of aluminum chloride. Part 27: Isomerization of α -methyldecahydronaphthalene. (MIRA 15:6)
Zhur.ob.khim. 32 no.6:1942-1945 Je '62.

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Naphthalene) (Aluminum chloride) (Isomerization)

TUROVA-POLYAK, M.B.; SOSNINA, I.Ye.; YUDKINA, T.P.

Isomerization of polymethylene hydrocarbons under the effect of
aluminum chloride. Part 25: Isomerization of cyclopentylcycloheptane.
Zhur.ob.khim. 31 no.10:3187-3190 0 '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet.
(Cycloheptane)

KOZINA, M.P.; SKURATOV, S.M.; SHTEKHER, S.M.; SOSNINA, I.Ye.; TUROVA-
POLYAK, M.B. (Moscow)

Heats of combustion of some bicycloalkanes. Zhur.fiz.khim. 35
no.10:2316-2321 0 '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Cycloalkanes) (Heat of combustion)

TUROVA-POLYAK, M.B.; BALENKOVA, Ye.S.; SOSNINA, I.Ye.; KHROMOV, S.I.;
YUDKINA, T.P.

Isomerization of polymethylene hydrocarbons under the effect of
aluminum chloride. Part 24: Isomerization of cyclononane and
cyclodecane. Zhur.ob.khim. 31 no.6:1976-1981 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Cyclodecane) (Cyclononane) (Isomerization)

TUROVA-POLYAK, M.B.; RUDENKO, N.V.

Catalytic alkylation of bromobenzene with propyl alcohols. Zhur.ob.
khim. 31 no.6:1982-1985 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Benzene); (Propyl alcohol)

28290

S/076/61/035/010/009/C15
B106/B101

11.1210

11.0132

AUTHORS:

Kozina, M. P., Skuratov, S. M., Shtekher, S. M., Sosnina, I. Ye., and Turova-Polyak, M. B.

TITLE:

Combustion heats of some bicyclanes

PERIODICAL:

Zhurnal fizicheskoy khimii, v. 35, no. 10, 1961, 2316-2321

TEXT: The authors determined the combustion heats of some bicyclic hydrocarbons with rings of 5, 6, and 7 members at 25°C. Only one series of publications exist on this subject which did not indicate either the measuring methods applied or the dependability of the results obtained (Ref. 3: (a) J. A. Goodman a. P. H. Wise, J. Amer. Chem. Soc., 73, 850, 1951; (b) K. T. Serijan a. P. H. Wise, J. Amer. Chem. Soc., 73, 4766, 5191; 74, 365, 1952; (c), (d) see below). The following hydrocarbons were examined: dicyclopentyl, dicyclopentyl methane, cyclopentyl cyclohexane, cyclopentyl cycloheptane, dicycloheptyl, trans-β-methyl decalin. The hydrocarbons were purified chromatographically on silica gel of the type KCM(KSM), then subjected to fractional vacuum distillation and finally subjected to chromatography on silica gel for another 2 or 3 times. Their

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B106/B101

Combustion heats of some ...

purity was determined by a cryoscopic method developed by A. G. Anikin, Ya. I. Gerasimov, and G. M. Dugacheva (Ref. 8: Dokl. AN SSSR, 110, 576, 1950). The calorimetric bomb used (Fig. 2) was designed by the thermokhimicheskaya laboratoriya MGU (Thermochemical Laboratory of Moscow State University), and had the following advantages as compared to other types of bombs: lower thermal inertness, simple and dependable valve construction for introducing and removing the gases, and insulated ignition wires resistant to the flame of the burning substance. The bomb was filled with oxygen free from combustion impurities to a pressure of 30 atm. Temperature of the calorimeter was measured by a specially designed thermometer allowing readings of an accuracy of 0.0002°C . Correction for the heat exchange was calculated according to the formula by Regnault-Pfaundler-Usov, and did not exceed 1% of the temperature ascent. The caloric value of the calorimeter system was determined by burning benzoic acid produced by the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev). The weight of the burned substance was found by determining the quantity of carbon dioxide produced by combustion. Carbon dioxide was absorbed by ascarite and its quantity determined by weighing

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B106/B101

Combustion heats of some

the absorption vessel. Accuracy of this method of CO_2 determination was $\pm 0.02\%$. Table 4 shows the results of determinations. By comparing the data obtained with the known values for the combustion heat of the corresponding monocyclanes (Ref. 13: S.J. Kaarsemaker a. J. Coops, Rec. trav. chim., 71, 261, 1952) and of trans-decalin (Ref. 14: G. F. Davies a. E. C. Gilbert, J. Amer. Chem. Soc., 63, 1585, 1941) the following relations could be established: combustion heat of any bicyclane consisting of rings with more than 4 carbon atoms:

$\Delta H_{\text{comb}}^{25} = \Delta H' + \Delta H'' + 60.1 \text{ kcal/mole}$ ($\Delta H'$, $\Delta H''$ = combustion heats of monocyclanes constituting the corresponding bicyclane; 60.1 kcal/mole = reaction enthalpy for forming a molecule of bicyclane and a molecule of hydrogen from 2 molecules of the corresponding monocyclanes); combustion heats of trans- β -alkyl decalins (for nonramified alkyl radicals):

$\Delta H_{\text{comb}}^{25} = 1500.3 + 154.2 + (n-1) \cdot 156.2 \text{ kcal/mole}$ (1500.3 = combustion heat of trans-decalin; 154.2 = increment of the CH_2 group directly bound to the ring; 156.2 = increment for a CH_2 group in the nonramified alkyl radical;

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Combustion heats of some ...

n = number of carbon atoms in the alkyl radical); combustion heats of bicyclanes separated by a methylene group, i.e., compounds of the type $X'-CH_2-Y'$ (X' , Y' = radicals of the corresponding monocyclanes):

$-\Delta H_{comb}^{25} = -(\Delta H_X + \Delta H_Y) - 60.1 + 155.3 \text{ kcal/mole}$ (ΔH_X , ΔH_Y = combustion heats of the corresponding monocyclanes; 155.3 = increment of the CH_2 group bound to two rings); isomerization enthalpies for the liquid state at 25°C: dicyclopentyl to trans-decalin ($\Delta H_{is}^l = -13.2 \text{ kcal/mole}$);

cyclopentyl cyclohexane to trans- β -methyl decalin ($\Delta H_{is}^l = 8.2 \text{ kcal/mole}$); dicyclopentyl methane to trans- β -methyl decalin ($\Delta H_{is}^l = -14.2 \text{ kcal/mole}$).

There are 2 figures, 4 tables, and 15 references: 6 Soviet and 9 non-Soviet-bloc. The three most recent references to English-language publications read as follows. J. B. Greenshields a. F. D. Rossini, J. Res. Nat. Bur. Standards, 62, 271, 1958; Ref. 3: (c) R. M. Caves, R. L. McLanghlin a. P. H. Wise, J. Amer. Chem. Soc., 76, 522, 1954; (d) J. H. Lamneck, jr, a. P. H. Wise J. Amer. Soc., 76, 5108, 1954.

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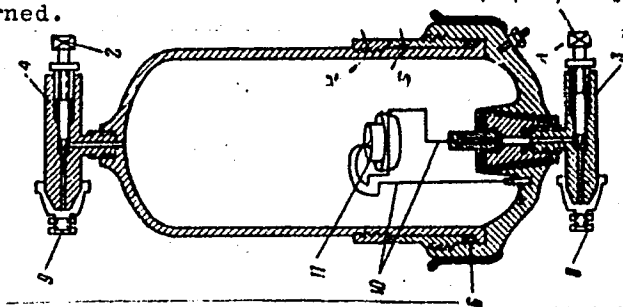
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B106/B101

Combustion heats of some ...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 25, 1960

Fig. 2. Cross section of the calorimetric bomb. Legend: (1), (2) conical valves for introducing and removing the gas; (3), (4) stuffing boxes; (5) sleeve nut for sealing the bomb; (6) rubber packing ring; (7) threaded ring to keep packing tight, when pressure drops to 1 atm in the bomb; (8), (9) connecting terminals; (10) ignition wires; (11) cup holding the substance to be burned.



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TUROVER, Ya.M.; STRUTINSKIY, N.I.

Use of Chebyshev's polynomials to calculate gradual transitions.
Radiotekh. i elektron. 1 no.2:143-161 P '56. (MIRA 9:7)
(Polynomials) (Electric lines)

TUROVER, YA.M.

USSR / Acoustics. Sound Oscillations and Waves.

J-2

Abs Jour : Ref Zhur - Fizika No 3, 1957, No 7439

Author : Turover, Ya.M.

Title : On the Laws of Periodic Structures, Established by N.P. Kasterin
in 1898 -- 1904.

Orig Pub : Tr. H - i. in-ta M-va radiotekhn. prom-sti, 1955, vyp. 4, 63-64

Abstract : Brief description of the work of N.P. Kasterin "On the Propagation of Waves in an Inhomogeneous Medium" (Uch. Zapiski Imp. Mosk, un-ta, 1904, No 20).

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УРОВЕНЬ,

УД. М.

Специальные установки с целью распространения ре-

А. В. Прохор,
В. Ф. Губин

Некоторые вопросы теории резонансного про-
хода при расхождении распространения УВЧ

А. В. Прохор,
Г. М. Соболев,
В. В. Алексеев

Экспериментальные исследования резонансного про-
хода при наличии трансформации распространения УВЧ

(с 12 до 16 часов)

В. Ф. Нестеров

Об оптимальном выборе параметров антенны
для сигнала на фоне шума

В. А. Алексеев

Плотность, зависимость и структура излу-
чения антенны

В. Алексеев

(с 18 до 22 часов)

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С. Н. Давыдов (Чехословакия)

Резонансное преобразование и влияние на про-
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А. Г. Давыдов

Расчет частотных характеристик антенны с
внутренним излучателем

В. Е. Васильев

К расчету перемещения процессов при частотной по-
мехе

18 часов

(с 10 до 16 часов)

В. А. Алексеев

Анализ влияния резонанса антенны на излу-
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В. Е. Степанович,
Г. С. Максимов

Дифракционные и дифракционные свойства
устройств

В. М. Турецкий

К вопросу об оптимальности принципа пере-
дающего устройства антенны антенны антенны

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report submitted for the Confidential Meeting of the Scientific Technological Society of
Radio Engineering and Electrical Communications in A. S. Popov (VCHS), Moscow,
8-12 June, 1959

TUROVER Ya. M.
TUROVER, Ya. M.

Method of calculating local reflection coefficients at the optimum
stages of transitions. Radiotekh. i elektron. 2 no.4:395-400 Ap '57.
(Polynomials) (Radio, Shortwave) (MLRA 10:9)

SOV-109-3-6-20/27

AUTHOR: Turover, Ya. M.

TITLE: Approximate Calculation of the Mutual Inductance of the Coupling Loop in the Cylindrical Cavity of a Multi-Resonator System (Priblizhennyi raschet vzaimoinduktsii petli svyazi i tsilindricheskoy polosti mnogorezonatornoy sistemy)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 6, pp 839-843 (USSR)

ABSTRACT: The problem is solved under the following assumptions: 1) the coupling loop is comparatively small, 2) the current distribution in the loop is uniform, 3) the field in the cylindrical cavity in the vicinity of the loop is uniform, and (4) the loop does not distort the field in the cavity. By employing the ideas of Hansen (Ref.2), the magnetic field at a point on the axis of the cavity at a distance x from the centre (see Fig.1a) is given by Eq.(1). From this it follows that the mutual inductance for the case of Fig.1b is given by Eq.(2) while for the system of Fig.1B it is expressed by Eq.(3) where $l = 2\pi r$. The inductance can also be derived from the integral represented by Eq.(4) (Ref.5). The approximate solution of the integral gives the mutual inductances in the form of Eqs.(5), (6) and (7). Eq.(7) was derived for the case when the loop is situated

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SOV-109-3-6-20/27

Approximate Calculation of the Mutual Inductance of the Coupling Loop in the Cylindrical Cavity of a Multi-Resonator System

in a magnetic field twice as strong as that of the magnetic flux of a single cavity. The mutual inductance, or the coupling coefficient, of the loop, was measured indirectly by means of the equipment shown schematically in Fig.2. The results are shown in Fig.5 where Curve 1 represents the experimental results, Curve 2 corresponds to the values of the mutual inductance as calculated from Eq.(2) and Curve 3 relates to the mutual inductance as evaluated from Eq.(7). The inductance L in Fig.5 was calculated by means of Eq.(9). The author expresses thanks to B. S. Grishin and

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SOV-109-3-6-20/27

Approximate Calculation of the Mutual Inductance of the Coupling Loop in the Cylindrical Cavity of a Multi-Resonator System

B. S. Marchenko, for their help in carrying out the measurements. The paper contains 5 figures and 5 references, 3 of which are English and 2 Soviet.

SUBMITTED: March 22, 1956 and after revision,
August 15, 1957.

1. Cavity resonators - Performance
2. Coupling circuits - Applications
3. Mathematics - Applications

Card 3/3

TUROVEROV, K.K. .

Investigating the strained and deformed state of an elastic
laminated half space. Nauch.trudy LTA no.94:87-101 '62.
(MIRA 16:1)

(Strains and stresses) (Foundations)

TUROVEROV, K.K.

Calculating a three-layer foundation with a thin intermediate layer.
Nauch. trudy LTA no.96:69-81 '61. (MIRA 17:3)

VISHNEVSKIY, A.S., prof., red. Prinsipy i metody: PETELIN, S.M.,
POZDEYEV, V.G., RUBINSKIY, S.I., TUROVEROV, K.K., MANIKOV, M.Ye.,
red.
[Basic principles and methodologies of climatotherapy] Os-
novnye printsipy i metodiki klimatolecheniya. 1965. 412 p.
(MJRA 18:12)

TUROVEROV, K K.

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PHASE I BOOK EXPLOITATION SOV/5729

Leningrad. Glavnaya geofizicheskaya observatoriya.

Voprosy prikladnoy klimatologii; sbornik statey (Problems in Applied Climatology; Collection of Articles) Leningrad, Gidrometeoizdat, 1960. 159 p. Errata slip inserted. 1,050 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR. Glavnaya geofizicheskaya observatoriya im. A. I. Voyeykova.

Ed. (Title page): F. F. Davitay, Doctor of Agricultural Sciences; Ed.: L. P. Zhdanova; Tech. Ed.: N. V. Volkov.

PURPOSE : This publication is intended for applied climatologists and planners in climate-dependent industries.

COVERAGE: This collection of 18 articles contains reports originally presented at the Conference on Applied Climatology in Leningrad in October 1958. The purpose of the conference was to summarize the results of research done in the field of applied

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Problems in Applied Climatology (Cont.)

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climatology and to point the way for further investigations. Individual articles deal with general problems in applied climatology and special problems in engineering and industrial climatology, medical and health resort climatology, climatic energy resources, and marine climatology. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

Foreword

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GENERAL PROBLEMS

Drozdov, O. A. [Glavnaya geofizicheskaya observatoriya im. A. I. Veynukova -- Main Geophysical Observatory imeni A. I. Veynukova]. Spatial and Temporal Climatic Characteristics Required to Serve the Needs of the National Economy

5

Sapozhnikova, S. A. [Nauchno-issledovatel'skiy institut aeroklimatologii -- Scientific Research Institute of Aeroclimatology] On Card 2/7

Problems in Applied Climatology (Cont.)

SOV/5729

PROBLEMS IN MEDICAL AND HEALTH RESORT CLIMATOLOGY

Chirakadze, G. I. [Tbilisskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut -- Tbilisi Hydrometeorological Scientific Research Institute]. Climatic Principles in Planning the Construction and Operation of a Health Resort 86

Chubukov, L. A. [Tsentral'nyy institut kurortologii i Institut geografii AN SSSR -- Central Institute of Natural Medical Factors and the Institute of Geography AS USSR]. Methods of the Comparative Analysis of the Climate of Health Resorts and Therapeutic Localities and Their Classification 90

Garovarov, K. K. [Gosudarstvennyy bal'neologicheskii institut na Kavkazskikh Mineral'nykh Vodakh -- State Balneological Institute at Kavkazskiy Mineral'nyye Vody (Caucasian Mineral Waters)]. Effect of Meteorological Conditions on the Regime of Mineral Springs of the Caucasian Mineral Waters 98

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TUROVEROV N. K.
TUROVEROV N. K.

30/50-59-2-23/75

3(7), 3(3)

AUTHORS:

TITLE:

PERIODICAL:

ABSTRACT:

Anapol'skaya, L. Ye., Gandin, L. S.
Conference on Applied Climatology (Sovetskoye po priklad-
noy klimatologii)

Meteorologiya i gidrologiya, 1959, Nr 2, pp 69 - 70 (USSR)

Between October 27 and 31, 1959 a Conference on Applied Climatology was held at the Glavnya Geofizicheskaya Observa-
toriya, A. I. Voznyakova (Main Geophysical Observatory
territory, A. I. Voznyakova). The conference convened upon re-
quest of the Glavnye upravleniya gidrometeorologicheskoy
sluzhby (Main Administration of the Hydrometeorological Ser-
vice). 91 institutes participated, among them 8 scientific
research institutes of the Hydrometeorological Service, 20
USSR, 17 planning organizations. In all, participation
amounted to 254 persons. 22 papers were read. V. P. Pavlov
spoke on the experience of the GGO in the field of applied
climatology, O. A. Kozlov on space and time characteristics
of the climate, L. Ye. Gandin on the use of the calculation
technique, M. K. Ustinov on the Northeast of the USSR,
field of applied climatology for the purpose of the
Y. S. Zubovskiy spoke on the method developed by him
for the determination of temperatures for the purpose of
calculating the five cold days on the basis of the data
of the year. G. M. Ustinov suggested in his paper that
the territory of the USSR should be divided into regions
for the planning of living quarters).
V. M. Il'inskiy gave a survey of the present state of
climatic data in regard of the project of the
structures. L. Ye. Kozlov spoke on the
on the method of statistical extrapolation developed by them
for the determination of the frequency of high wind velocities.
M. P. Parshchikov proposed a method for the determination of
the gust coefficient based on the spectrum theory of turbulent
motions. V. A. Gerasimov gave a survey of the require-
ments made of climatic data in calculating wind and snow
loads on buildings. G. I. Chirskaya reported on the ex-
perience made in the consideration of the climate of health
resorts in the Caucasus in planning and construction.
L. A. Chubukov proposed a method for the analysis of the
climate of health resorts based on a general climatic
climate of health resorts studied some climatic characteristics
of the Latvian health resorts from the point of view of
therapeutics. M. K. Turverov studied the influence of
meteorological conditions on the Caucasian mountain
resorts. V. A. Gerasimov reported on climatological investi-
gations for the purpose of modernizing and improving living
conditions (housing, clothing). V. Ye. Kozlov spoke on the
study of actual temperatures for the European part of the
USSR. M. V. Ismailov spoke on the "Consideration of the
Some Characteristics of the Radiation Climate which in-
fluence the Operation of Solar Pumps". E. E. Aki-
movich spoke on "The Wind Energy Reserves in the Pricher-
nomorskaya Steppe". V. S. Kozlovskiy submitted extensive
climatic characteristics for the use of climatic data for in-
direct estimates of the wind and wave conditions on seas
and oceans. B. I. Ivanov gave a survey of the basic data
and requirements made of marine climatology for the
security of sea navigation.

Card 2/4

Card 1/4

TUROVEROVA, N.I., kand. med. nauk

Determination of the duration of prenatal leave. Akush. i gin.
no. 1298-101 '63. (MIRA 17:6)

1. Iz kafedry organizatsii zdravookhraneniya (zav. - dotsent
N.G. Sinyavskaya) i kafedry akusherstva i ginekologii (zav.-
prof. A.I. Petchenko) Leningradskogo pediatricheskogo meditsinskogo
instituta.

TUROVEROVA, N.I., kand. med. nauk; TREYVUSH, A.I.

Diagnosis of gonorrhea in gynecological consultation centers.
Akush. i gin. 38 no.5:116-117 S-O '62.

(MIRA 17:11)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof. A.I.
Petchenko) Leningradskogo pediatricheskogo meditsinskogo instituta.

TUROVEROVA, N.I.

Puerperal Convulsions

Prevention of eclampsia in gynecological and obstetric consultation centers.
Vop. pediat. i okhr. mat. i det. 20, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, AUGUST 1952 1952, Unclassified.

TUROVEROVA, N.I.

Gynecology

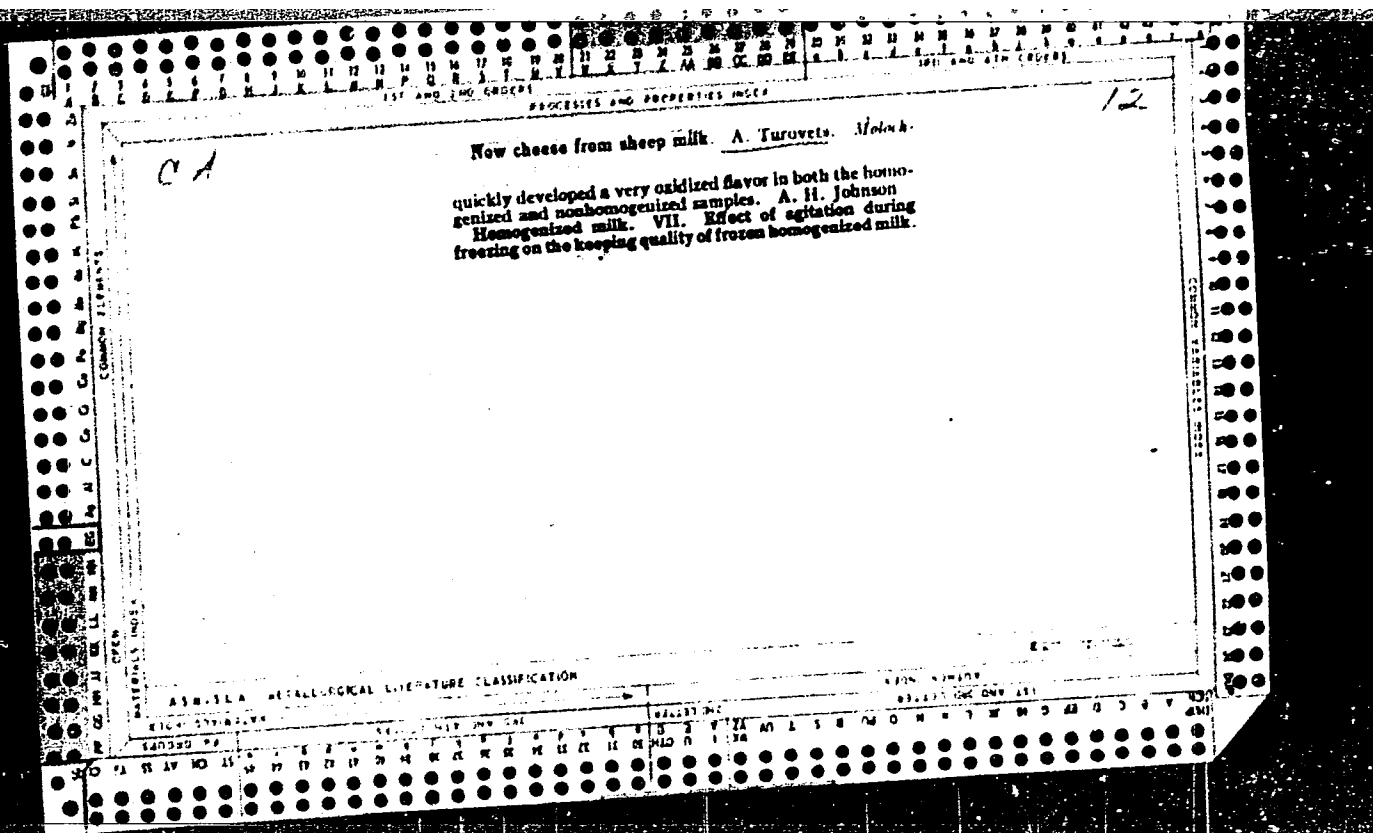
Prevention of eclampsia in gynecological and obstetric consultation center.
Vop. pediat. i okhr. mat. i det. 20, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, AUGUST 1952 ~~1950~~. Unclassified.

TUROVETS, A.

TUROVETS, A. I. IERASHOVA, T.
33239. K Voprosu O Vыхode I Ucushke Brynzy. Moloch Prom-st', 1949,
No. 10, c. 40-41

SO: 'etopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949



BRATUS', V.D., dots., otv. red.; AMOSOV, N.M., prof., red.;
KOLOMIYCHENKO, M.I., prof., red.; FEDOROVSKIY, A.A.,
prof., red.; TUROVETS, I.G., prof., red.; KLOCHKOV, I.Ye.,
dots., red.; LEVCHUK, G.A., dots., red.; TRESHCHINSKIY, A.I.,
dots., red.; KOCHKOV, I.Ye., red.; CHUCHUPAK, V.D., tekhn.red.

[Problems of anesthesiology] Voprosy anesteziologii. Sbornik
nauchnykh rabot, posviashchennyi 70-letiiu so dnia rozhdeniia
chlena-korr. AN USSR, zasl. deiatelia nauki prof. I.N.Ishchenko.
Kiev, Gosmedizdat USSR, 1963. 254 p. (MIRA 16:7)

1. Kiev. Medychnyi instytut.
(ISHCHENKO, IVAN NIKOLAEVICH, 1891-) (ANESTHESIOLOGY)

TUROVETS, I.G., prof. (Kiyev, ul. Engel'sa, d.26, kv.8); TOLSTOVA, G.M.,
kand.med.nauk

Potentiated anesthesia in surgery. Nov.khir.arkh. no.1:
54-63 Ja-F '59. (MIRA 12:6)

1. Kafedra khirurgii (zav. - prof.I.G.Turovets) sanitarno-
gigiyenicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.
(ANESTHESIA)

TUROVETS, I.G. ... prof. (Kiyev, ul.Engel'sa, d.26, kv.8)

Basic principles of the prophylaxis and treatment of mastitis.
Nov.khir.arkh. no.4:16-27 J1-Ag '59. (MIRA 12:11)

1. Kafedra khirurgii (zav. - prof.I.G.Turovets) sanitarno-
gigiyenicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.
(BREAST--DISEASES)

TUROVETS, I.G., prof.

Seventieth birthday of M.B.Zamoshchin. Nov.khir.arkh. no.1:
133-134 Ju-F '59. (MIRA 12:6)
(ZAMOSHCHIN, MANUIL BORISOVICH, 1889-)

TUROVETS, I.G., prof.

Neuroplegia in the operative treatment of goiter patients.
Vrach.delo no.11:63-67 N '62. (MIRA 16:2)

1. Kafedra khirurgii (zav. - prof. I.G. Turovets) sanitarno-
gigiyenicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.
(GOITER) (AUTONOMIC DRUGS)

TUROVETS, I.G., prof. (Kiyev, ul. Engel'sa, d.26, kv.8)

Use of anticoagulants in the compound treatment of thrombophlebitis
and phlebothrombosis. Nov.khir. arkh. no.6:17-25 H-D '57.

(MIRA 11:3)

1. Kafedra khirurgii sanitarno-gigiyenicheskogo fakul'teta (zav. -
prof. I.G.Turovets) Kiyevskogo meditsinskogo instituta.

(ANTICOAGULANTS (MEDICINE))

(VEINS--DISEASES)

TUROVETS, I.G., prof., ULANOVSKIY, I.N., kand.med.nauk

Is ligation of the hepatic artery permissible in treating portal hypertension. Vrach.delo no.8:815-818 Ag '58 (MIRA 11:8)

1. Kafedra khirurgii sanitarno-gigiyenicheskogo fakul'teta
(zav. prof. I.G. Turovets) Kiyevskogo meditsinskogo instituta.
(HEPATIC ARTERY--LIGATURE)
(HYPERTENSION)

TUROVETS, I.G., prof.

Thrombophlebitis and phlebothrombosis of the lower extremities
not responding to anticoagulant treatment. Vrach.delo no,2:117-121
F '58. (MIRA 11:3)

1. Khirurgicheskaya klinika (zav.-prof. I.G.Turovets) sanitarno-
gigiyenicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.
(PHLEBITIS) (THROMBOSIS)

TUROVETS, I.G., prof. (Kiyev, ul.Chkalova, d.37a, kv.12)

Some problems of thrombosis and embolism in surgery. Nov. khir.
arkh. no.9:34-41 S '61. (MIA 14:10)

(SURGERY--COMPLICATIONS AND SEQUELAE)

TUROVETS, I.G., prof. (Kiyev, ul.Chkalova,d.37a,kv.12); TOLSTOVA, G.M.;
BOGOMOLETS, I.S., dotsent

Anesthesia methods in operations for diseases of the biliary tract.
Klin.khir. no.7:53-58 J1 '62. (MIRA 15:9)

1. Kafedra khirurgii (zav. - prof. I.G.Turovets) sanitarno-gigiye-
nicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.
(BILIARY TRACT--SURGERY) (ANESTHESIA)

118

CH

Processes and Properties

Variations in the acid-base equilibrium in hepatic disease after fatigue. I. M. Turovets and R. M. Kharitonova. *J. med. Uraln* 8, 517-518 (in French, 514) (1938).—Resting patients suffering from hepatic disease of not too severe a character showed no change in the acid-base equil. although the blood contained a high concn. of partially oxidized metabolic products (ketonic bodies, lactic acid and residual N). After fatigue the reserve alkali fell, and a diminution of H_2CO_3 in the alveolar air, of NH_3 in the urine and of acidity of the urine was observed. S. A. Karjala

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA DETAILING LITERATURE CLASSIFICATION

116

CHANGES IN THE BLOOD OF NEUROPATHS DURING FATIGUE
 I. M. TURUYETS. *J. med. Libr.* 8, 807 (1961) French.
 ST. 18711857. Aside from certain paradoxical reactions,
 no differences were observed in biochem. and neurovegeta-
 tive reactions between neurotic and healthy subjects as a
 result of muscular fatigue. S. A. Kartala

ASS-55A RETALLUNGAL LITERATURE CLASSIFICATION

| COMMON ELEMENTS | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PROCESSES AND PROPERTIES | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Hemodynamic variations in hepatic disease after fatigue. I. M. Lucovsky and I. G. Tonkonog. <i>J. med. USSR</i> 8, 515-24 (in French, 524) (1968). -Some hemodynamic variations are noted even in the state of rest in hepatic disease, depending upon the extent of hepatic lesions. After fatiguing exercise the pulse is accelerated, there is a great difference between the O content of arterial and venous blood, and an increase in the index of consumption of O, a slight increase in gaseous metabolism and a more rapid circulation are observed. There is a great difference between the H_2CO_3 of arterial and venous blood. The reserve alkali falls and the amt. of lactic acid in the blood rises.</p> <p style="text-align: right;">S. A. Karala</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>FROM SYNDICATE</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>RESEARCH</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

| 1ST AND 2ND ORDERS | | PROCESSES AND PROPERTIES INDEX | | 100 AND 4TH ORDERS | |
|--|--|--------------------------------|--|--------------------|--|
| <p>THE CLINICAL VALUE OF THE VAPOR PRESSURE OF CARBON DIOXIDE IN ALVEOLAR AIR. I. Experimental methods. 1. M. Furuyes, <i>J. med. Chem.</i> 7, 311-35 (in French 321-5) (1937). The vapor pressure of CO₂ in arterial alveolar air is 30.6-37.0 mm. Hg (4.5-5.5% CO₂) and in venous alveolar air 39.2-46.3 mm. Hg (5.5-6.5%). The pressure of CO₂ varies with the acid-base equil. Administration of alk. reserve (acidosis) results in a fall in CO₂ pressure. Parallel changes in arterial and venous alveolar air are generally found. II. Clinical significance. <i>Ibid.</i> 579-80 (in French 589). Diabetic acidosis results in a fall in the vapor pressure of CO₂ (I) in alveolar air. Chronic kidney diseases are accompanied by a greater decrease in I in both arterial and venous alveolar air than is found in acidosis. Nephritis causes no change in I. Cardiovascular disturbances show low values of I in arterial and higher values in venous alveolar air. Pulmonary disturbances show high values of I only when breathing has been considerably limited. S. A. Karjala</p> | | | | | |
| <p>ASB-15A METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | |
| <p>REGION SYMBOLS</p> | | | | | |
| <p>SYMBOLS FOR ONE USE</p> | | | | | |
| <p>SYMBOLS</p> | | | | | |

| 1ST AND 2ND ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Problem of senility [as studied in Abchasian centenarians]. IV. Basal metabolism and biochemical changes in the blood. I. M. Turavets. <i>J. med. Ukraine</i> 8, 77-85(1938).—Basal metabolism was 50% below normal. Blood chemistry was normal. B. C. P. A.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 1ST AND 2ND ORDERS | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | |
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| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| <p>Hemodynamics in persons of advanced age. II. 1. M. Turvey, <i>J. med. Phys.</i> 9, 477-483 (in French, 1937) (1939); cf. C. A. 33, 25000. A study of 21 subjects aged 80-120 yrs. indicated that basal metabolism and the minute and systolic vols. of the heart are lowered. There is a greater difference between the O₂ content of arterial and venous blood and the coeff. of utilization of O₂ is increased. A slight venous hypoxemia, sometimes accompanied by arterial hypoxemia, generally occurs. The blood content and blood circulation decrease.</p> <p style="text-align: right;">S. A. Karjala</p> | | | | | | | | | | | | | | | | | | | |
| <p>ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | |
| 1ST AND 2ND ORDERS | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | |
| <p>GROUPS</p> | | | | | | | | | | | | | | | | | | | |

| 1ST AND 2ND ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | |
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| COMMON ELEMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | COMMON VARIANTS | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Gas exchange and blood variations in old age. 1. M. Turvytska. <i>J. med. Ukrain</i> 8, 819-20 (in French, 1938).—The blood of healthy subjects 60-85 years of age showed a dry residue of 20.2% (av.) and an albumin/globulin ratio of 0.9-2. The values for Na, Cl, lactic acid and reserve alkali were normal, while blood sugar and N compds. were at the upper limit of normal and K and Ca were present to 24.6 and 12.1 mg. %, resp. The K/Ca ratio was without noticeable change. Inorg. P and Mg were present to 3.9 and 3.7 mg. %, resp. The urea N/residual N ratio was below normal. Cholesterol was present generally at the upper limit of normal (190 mg. %).</p> <p>S. A. Karjala</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

11F

Interchange of substances in aged subjects. I. M. Turovets and L. I. Pravdina. *Trans. Conf. Sendly, Kiev 1938*, 327-34; cf. C. A. 33, 2500; 34, 1300. — Basal metabolism and pulmonary ventilation are decreased in individuals aged from 00 to 140. Dry residue of blood is normal, total amt. of serum protein is decreased; globulins are raised; cholesterol and cholesteryl esters are diminished. Ca and Mg are raised, P lowered; the coeff. K/Ca decreases. Acid-base balance is unchanged. Vol. of urine is diminished, excretion of urea delayed, but no renal lesions were found. B. C. P. A. 4

CA

Acid-resistant andalusite vats. P. Zhuravskii-Mosk.-boins-Zhurnal 1939, No. 4, 41-2; Khim. Refrat. Zhur. 1940, No. 2, 124.—The compn. of acid-resistant andalusite cement, methods of prepn. and its mech. and physical properties are given. The cement has breaking strength 65-130 kg./sq. cm., crushing strength 800-900 kg./sq. cm., moisture permeability 0.01-0.1%, m. p. 1270° and porosity 10-12%. The life of andalusite vats is 6 times that of wooden vats.

W. M. Henn

TUROVETSKIY, A.; FEL'DMAN, A.

Application of labor legislation in building houses by the method
of public construction. Sots.trud 4 no.5:125-127 My '59.
(MIRA 12:8)

(Labor and laboring classes--Dwellings)

TURCVETS'KYI, F.

Vodnyi transport Ukraini ta shliakhi iogo sotsialistichnoi rekonstruktsii. [Water transportation in Ukraine and the ways of its socialist reconstruction]. Kharkhiv, Gospodarstvo Ukraini, 1932. 90 p. maps. diagrams.

Gives a chart of freight turnover in the ports of Ukraine. A map of the canal system of the rivers Dniepr and Bug.

DLC: HE675.1Ust8

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

BC

A-4

Basal metabolism in liver diseases. I. O. TONKOVSKI and I. M. TUNOVSKI (J. Méd. Ukrain., 1938, 8, 1139-1140).—Basal metabolism was lowered in 28 cases of uncomplicated hepatic insufficiency (infectious icterus, hepatitis, cirrhosis, carcinoma). This effect is ascribed to disturbances of the autonomic nervous system. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

| ATOM SYMBOLS | | | | | | | | | | CHEMICAL GROUPS | | | | | | | | | | PHYSICAL PROPERTIES | | | | | | | | | | ANALYTICAL DATA | | | | | | | | | |
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| 1ST AND 2ND ORDERS | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | |
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| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| <p>3C</p> <p style="text-align: right;">24</p> <p>Intensification of metabolism in acid or alkali. I. M. Tur-
vets and L. A. Pavlovskaya. <i>Tr. Vsesoyuz. konf. medits. nauk</i>, 1938,
231-234. (Russian) Summary: and, pulmonary ventilation
are decreased in acid or alkali. Dry residue
of blood is increased. The amount of serum proteins is de-
creased; cholesterol, phospholipids and cholesterol
esters are decreased. The amount of serum albumin is lowered;
the content of cholesterol is unchanged. Androgen balance is unchanged.
Vol. of urine is diminished, excretion of urea delayed, but no
renal lesions were found. M. K.</p> | | | | | | | | | | | | | | | | | | | |
| <p>ASS-5LA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | |
| FROM DIVISION | | | | | | | | | | FROM DIVISION | | | | | | | | | |
| <p>10000 0 1</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20</p> | | | | | | | | | | <p>21000 0 1</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20</p> | | | | | | | | | |

PC

Changes in the blood of neuropathic during
Intox. I. M. Turovskii, N. M. Ushakov, 1938,
S. 607-615. The changes in blood chemistry
taking place during poisoning work in a group of 30
neuropathic did not differ from normal. B. T.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

VEHICLE NUMBER

VEHICLE NAME